

**Technical Standard: Automotive Technology**

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The students will be introduced to the many systems on today's automobile. The students will be able to use tools and equipment, be familiar with safety issues and be familiar with career opportunities in the automotive industry. The students will be familiar with the following systems: electrical, engine, suspension and steering, brakes, manual and automatic transmissions and transaxels, heating and air-conditioning and demonstrate leadership skills.

**Indicator:**

A. Demonstrate the knowledge of safety, proper shop operation, career options in the field of automotive service.

**Indicator:**

B. Develop competencies in the safe and efficient use of the tools, machines, materials, and basic of automotive fundamentals.

**Indicator:**

C. Apply concepts from mathematics, science, and communications in the context of automotive technology.

**Indicator:**

D. Demonstrate knowledge in diagnosing and repairing of general electrical systems, batteries, starting, charging, lighting, and electrical accessories.

**Indicator:**

E. Analyze and repair ignition, fuel, and emission systems.

**Indicator:**

F. Diagnose, evaluate, and repair general engine condition, cylinder head and valve trains, and short blocks.

**Indicator:**

G. Assess and repair engine cooling and lubrication systems.

**Indicator:**

H. Evaluate and repair front and rear suspension, steering, tire, and wheel alignment systems.

**Indicator:**

I. Demonstrate knowledge and understanding of automotive brake systems.

**Indicator:**

J. Demonstrate the knowledge of clutch, drive shaft, differential, manual transmission/transaxle and four wheel drive systems.

**Indicator:**

K. Perform on and off car diagnosis, maintenance and repair of automatic transmissions/transaxles.

**Indicator:**

L. Inspect and repair climate control systems.

**Indicator:**

M. Develop workplace readiness and employability skills necessary to work with others, and reach an employable exit point.

**Indicator:**

N. Develop personal and professional skills through involvement with the Skills USA-VICA student organization activities.

**Indicator:**

O. Demonstrate employability and social skills relative to careers.